

**Minutes of the Carlisle Board of Health
September 30, 2014**

	Minutes –9/8/14, 9/17/14 Bills Administrative Reports
Cancer Incidence in Carlisle – David Estabrook 81 Russell Street (Garrison Place) –	<ul style="list-style-type: none">• Revised Septic Plan• Master Deed and Trust Documents• Geo-Hydrocycle Contract – to be signed• Pre-development meeting notes• Water Supply Comments – D Provencher
Discussion Items	<ul style="list-style-type: none">• Irrigation Wells – local Policy• Meeting with DEP Drinking Water Program (Risso, Storrs, Fantasia)• Lifetime Green Homes<ul style="list-style-type: none">○ Town Advisory Group Meeting Notes (Freedman)• Benfield Farms Septic and Well Issues<ul style="list-style-type: none">○ TCG Site visit 9/24/14○ Septic & Well Kramer emails (9/24/14, 9/29/14, Curreri (9/223/14)○ COA Letter dated 9/29/14
NEW BUSINESS	Prospective Member Introduction

The meeting was called to order by the Chairman at 7:00 pm at town hall. Present were Board members Bill Risso (Chairman), Lee Storrs, Donna Margolies, and Cathy Galligan and prospective member Todd Thorsen. Also present were Linda Fantasia, Health Agent, Ginny Lamere (Carlisle Mosquito)

MINUTES – tabled

BILLS – Engineering Consultant. It was moved (Galligan) and seconded (Margolies) to approve the bills as presented. Motion passed 4-0-0.

ADMINISTRATIVE REPORTS

95 Hanover Road – Public records and Board contact must be made through the Town Clerk (town counsel letter 9/22/14). The Board is concerned that the owner may not be aware of the winter shut down. The notice was sent to the installer.

Population Health Clerkship (PHC) – Oct 20-31. Four second year medical students will be working on Cancer Awareness in Adolescents and Young Adults. Students will be visiting a number of resources including the Concord Carlisle Regional HS School Nurse, David Estabrook, and Bruce MacDonald MSW at the Dana Farber Cancer Institute. The students may look into project funding opportunities with CHNA 15. Galligan prepared a scope of work for the students which the Board reviewed.

Dover Tick Density Study – The Lyme Disease Subcommittee is planning to organize a discussion on deer management on town lands. The talk is tentatively scheduled for January 2015 in the Community Room at the school. Dr. Barbara Roth-Schechter, Dover Board of Health Chairperson has agreed to speak. The Committee is looking for additional panelists.

Health and Medical Coordinating Coalitions (HMCC) – The Board reviewed a memo describing the “Distribution of Funds for Budget Periods 4 and 5”. There may not be any local allocations after this Budget Period. Region 4A and 4B are required to merge. There are 34 towns in 4A and 27 towns in 4B. 4B has a greater population if the new governing structure decides to do population based funding.

Enterovirus D68 – DPH provided three updates. The school nurse is monitoring illnesses.

Dept. of Fire Safety Conference – Galligan reported that it was an excellent conference. She attended one of the two days. One of the workshops discussed the need for sprinklers, especially in newer buildings. These structures use engineered materials that provide a cost and structural benefit but do not have the fire resistance of older materials. They burn more quickly resulting in shorter collapse and escape times. The collapse time for older buildings is around 30 minutes whereas newer ones can start to fall apart in about 6 minutes. Entry into a structure at this point can be extremely dangerous. A sprinkler system has many advantages. It helps to keep the fire contained and allows longer time for evacuation. This is particularly important in elderly housing due to mobility issues. Fire Departments are beginning to speak out about the new dangers but there needs to be coordination with the Building Code. Galligan offered to prepare a packet of information and ask Carlisle's Building Inspector and Fire Chief for comments. Sprinklers only use 10% of the water normally used compared to fighting a fire without sprinklers. The Board agreed it is a serious situation but was uncertain about its authority. The Board would like to know if other towns require sprinkler systems for certain buildings.

CANCER AWARENESS IN CARLISLE PRESENTATION

David Estabrook, a Master in Public Health candidate at UMass, presented the results of his study of Carlisle's cancer statistics. David was a participant in the DPH public health internship program and chose to work on this project proposed by the Carlisle Board of Health. David examined cancer incidence data and considered the difficulty interpreting data in a small town context. He evaluated demographic and environmental factors and provided recommendations for cancer outreach education. Data in the DPH cancer registry showed that melanoma in women was the only cancer in Carlisle with a statistically significant difference between observed and expected cases. Breast cancer and prostate cancer exceeded the number of cases expected in Carlisle (DPH calculates expected cases based on the population's age and sex distribution) and incidence of lung and bladder cancers were lower than expected, but none of these differences were statistically significant. David found no support to indicate the presence of cancer clusters and there insufficient data to demonstrate any environmental causes for cancer in Carlisle. Elevated melanoma in women may be the result of upper socio-economic status allowing more travel, leisure time, gardening and outdoor activities. Residents also have excellent medical care including diagnostic tools, which may result in higher than expected cases relative to other parts of the state. The Board should continue to monitor rates and educate residents on prevention. Specific risk factors of concern may include sun or tanning booth exposure, arsenic in drinking water, and you tobacco use.

The Board agreed the project was well defined and well presented. The Board hopes to continue work on outreach efforts. The Board thanked Estabrook for his work.

81 RUSSELL STREET (GARRISON PLACE)

Present were William Hall, Stamski & McNary Inc. (SMI), abutters Gabrielle Dockterman and Dusty Johnstone, Steven Smith (Geo Hydrocycle), J J Cohen (developer).

Smith presented his findings and recommendations relative to the groundwater mounding analysis and nitrate loading calculations for the project. The Board requires that systems greater than 2000 gpd for multi-unit dwellings result in no rise in groundwater elevation and no greater than 5 mg/L of nitrogen at the perimeter boundary due to the sewage disposal system.

SMI had utilized the HANTUSH Model software program which Smith noted he had developed. This was acceptable except SMI did not specify the saturated thickness in the model. Furthermore the sewage flow rate was equivalent to 4800 gpd whereas the project design flows are 5280 gpd. These were the only two discrepancies Smith found. Smith suggested installing 3 monitoring wells to identify the saturated thickness and using 5280 gpd for calculated sewage flows. As for nitrate loading, SMI used a nitrate loading assessment based on the Cape Cod Aquifer Management Project and Technical Bulletin 91-001 Nitrogen Loading which is a DEP approved methodology. They also assumed that since Spencer Brook is a down gradient discharge point for groundwater from the leaching field, nitrates would be discharged to and diluted by the brook. Smith recommended using the information from the groundwater monitoring wells to establish the saturated thickness and verify the direction of

groundwater flow from the system to the brook. Because the brook runs along the property line it can be assumed that nutrients do not migrate beyond the property line. He also suggested using the probable occupancy rate (two people/unit) rather than Title 5 flows which overestimate occupancy.

Hall said they would install the wells and revised the analysis accordingly. He did not think the change would be significant.

Risso asked about pathogens. Smith explained the two year travel time with nitrates through soils. The model used does not calculate velocity. He does not see the potential for a problem since the discharge is into the brook where there is dilution. The groundwater does not flow toward the direction of the onsite well.

Fantasia had spoken with Don Provencher who designed the Public Water Supply. DEP has approved the site and pump test. There will be a generator. The Board will want a copy of the Operations Manual. The Board asked about the water tank storage. Hall said there is a shed located on the plan. Cohen added that all of the system alarms will have auto dialers and 24/7 coverage. The Board will ask Rob Frado whether he has a preference on external or internal alarms. The plan currently locates the septic system alarm at the back corner of one unit.

Dockterman's property is across the street. She has a pond on her property and is concerned about water quality. After locating her pond on a plan, Smith did not feel there would be any problem. Johnstone had the same concern about possible contaminants entering a pond on his property. Smith said the wastewater is treated before discharge into the soils. If the system is properly maintained there should be no problem. Dockterman asked about fertilizers increasing the nitrogen load. Smith said the Mass Balance model adds up all nitrogen concentrations. The model predicts that the system will meet local regulations because the brook is the property line on the down gradient groundwater flow direction.

Cohen asked about issuing partial Certificates of Compliance (COC). They expect build out within one year. The Board agreed that Frado signs the COC and may have a preference on how to handle this. Cohen said construction will begin on the public water supply as soon as Planning Board issues the Special Permit. A number of pre-development meetings have been held with land use and public safety to go over permit conditions.

Johnstone is concerned about the size of the units and the potential for adding bedrooms. Cohen said the number of bedrooms will be restricted in the Master Deed and Condo Association Rules and Regulations. He does not expect this to be a problem. Risso asked whether fines are issued for violations. Cohen does not feel this is necessary. The owners will police themselves in order to maintain property values. The Board has also been concerned about the potential for adding bedrooms. This is an elderly housing project which may include live-in help.

The Board will ask Planning Board to include a condition in the Special Permit that the Building Inspector inspect any unit that is being sold to verify that there have been no changes in the floor plan.

The Board will also want monitoring wells located down gradient from the leaching field. These should be inspected at least quarterly for contaminants that could indicate a problem with the system. The developer should propose a monitoring schedule, well installation specifications and parameters to be tested.

The developer has been working on an escrow agreement to fund the repair, maintenance and replacement of the septic system. A final draft will be submitted to the Board.

The Board thanked Smith for his presentation. There were no further questions from the audience.

DISCUSSION ITEMS

Benfield Farms Development - Toby Kramer met with the Board on behalf of NOAH.

Kramer explained that the well and septic issues that they thought had been resolved in the spring are still causing problems. She had not been aware of any problems until notified by the Board. Fantasia had received a complaint from a tenant and a relative of a tenant. Both commented on the poor quality of the water and one mentioned a

strong septic odor outside. Fantasia had Rob Frado do a site visit on 9/24/14. He noted a strong odor near one of the vents and a manhole cover that was missing bolts. He recommended replacing the bolts and putting a rubber washer under each metal washer. A charcoal filter should be added to the vent. The system operator needs to evaluate whether the system is functioning correctly.

Kramer followed up with Small Water Systems Services (SWSS) and head of maintenance. The water is safe to drink but has a strong odor and is very cloudy. They discovered that the water filtration system was not working properly. They are bringing in R. E. Prescott, the vendor, to recalibrate the system and do another start up as well as training for SWSS on maintenance and operations. Benfield now has 23 residents. Kramer is arranging a meeting with all tenants to go over the septic and water issues. Kramer agreed that better communication is needed. Peabody Properties just hired its third manager for the property, Susanna Curerri. Fantasia noted the Emergency Contact List had not been updated. Risso said all of the contacts should provide cell phone numbers.

As for the leaching field, it was raked and reseeded last week. Frado will do another final grade inspection. He will want another final grade as-built.

The Board thanked Kramer for meeting with them. Kramer agreed to make sure all reports are filed with the Board in a timely fashion. Peabody Properties will keep tenants better informed about any problems that arise.

100 Long Ridge Road (Lifetime Green Homes)

The Board has still not received the condominium documents describing ownership of the private wells. The Board had met with Jim Persky of the Drinking Water Program to discuss DEP's new policy on private wells for large developments. DEP changed its regulation on public well classification a few years ago. Under the revised regulation, DEP "reserves the right to evaluate and determine whether two or more wells located on commonly owner property, that individually serve less than 25 people, but collectively serve more than 25 people for more than 60 days of the year should not be regulated as a public water system, taking into account the risk to public health". If a well is classified as private, the individual owner must have total control over the maintenance and operation of the well. The Board of Health would then be the permitting authority. The Board voiced its concerns about this policy which can endanger health and the environment.

Mike Hanauer, abutter, said he is certain there are going to be environmental problems as a result of the development. There are three leaching fields, 20 homeowners, and a number of private wells. The water supply and water quality could be harmed. There will be very little control over these wells if they are privately owned. The Board suggested he voice his concerns to DEP.

Risso explained that if the Zoning Board refuses to allow private wells for the project, the applicant can appeal to the Mass. Housing Court. This Court would then be making decisions on public health matters. A Public Water Supply requires a 48 hour pump test, site approval by the state, and regular monitoring. It also requires a Certified Well Operator. None of these are required for a private well. The only suggestion from DEP on the Long Ridge Road project would be to do a 24 hour pump test of all wells including abutters. Risso said this is why it is important for the abutters to allow access to their wells. The Board agreed that it is frustrated over DEP's position and will continue to identify potential health risks such as the high arsenic levels in this area according to the state's latest study. There was no further discussion.

Irrigation Policy - Risso presented the Board with recharge calculations compared to irrigation demands. Based on his numbers, he calculated that the average recharge at 1500 gals/day/acre and irrigation demand at 1500 gals/day of use. He used the model used for the Banta Davis Water Study. His findings showed the irrigation can easily over-run the recharge rate. He would like to limit irrigation to only what the specific land area can support (water rights) based on a formula prepared by the Board. Galligan noted that installation specifications also play a role in the water use. The Board might consider certifying vendors that design environmentally sensitive irrigation systems. Risso said that Coventry Woods prepared an irrigation plan that included xeriscape landscaping, capturing roof runoff, storage tanks, and a backup irrigation well. The Board agreed this should be a requirement of any new development. Although there is no immediate water supply problem in Carlisle, more homes are installing irrigation systems which require a much greater amount of water than the average household use.

Hanauer asked about geothermal wells. The Board explained that most of these are closed loop whereby a fluid in sealed piping is recirculated with no use of groundwater.

The Board agreed there are newer technologies which could help conserve water. There are special collection barrels for roof runoff that expel the first flush which could contain pollutants from the shingles. There may be various ways of addressing irrigation that will not deplete the natural resource. The Board will check with other towns on whether they have irrigation regulations or policies. Agricultural wells would be exempt from any policy. The Board agreed to continue researching the matter which will need support of the town.

Prospective Board Member – The Board welcomed Todd Thorsen who has applied for the vacancy. The appointment will take place at a joint meeting with the Selectmen on 10/14/14. The appointment will run until the next annual election in May.

There was no further business. Meeting voted to adjourn at 9:50 pm.

Respectfully submitted,

Linda M. Fantasia
Recorder